

Inductive Sensor

with Increased Switching Distance

I04H004

Part Number



- High switching frequency of 3,000 Hz
- Increased switching distance
- Integrated LED adjustment tool
- Miniature stainless steel design

These inductive sensors feature increased switching distances and high switching frequencies in a miniature design. This provides effective detection of end positions and the smallest of parts, even in very confined spaces, and it means they can be used in fast assembly processes. The robust stainless steel housing and the integrated, bright LED adjustment tool ensure easy installation and a long service life.



Technical Data

Inductive Data

Switching Distance	1 mm
Correction Factors Stainless Steel V2A/CuZn/Al	0,80/0,60/0,50
Mounting	Flush
Mounting A/B/C/D in mm	0,5/4/3/0
Switching Hysteresis	< 10 %

Electrical Data

Supply Voltage	10...30 V DC
Current Consumption (U _b = 24 V)	≤ 10 mA
Switching Frequency	3000 Hz
Temperature Drift	≤ 10 %
Temperature Range	-25...70 °C
Switching Output Voltage Drop	< 2 V
Switching Output/Switching Current	≤ 100 mA
Residual Current Switching Output	≤ 0,1 μA
Short Circuit Protection	yes
Reverse Polarity and Overload Protection	yes
Protection Class	III

Mechanical Data

Housing Material	V2A stainless steel, POM
Degree of Protection	IP67
Connection	Cable, 3-wire, 2 m
Cable Jacket Material	PUR

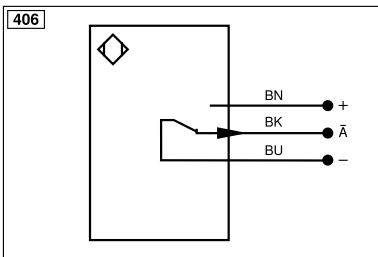
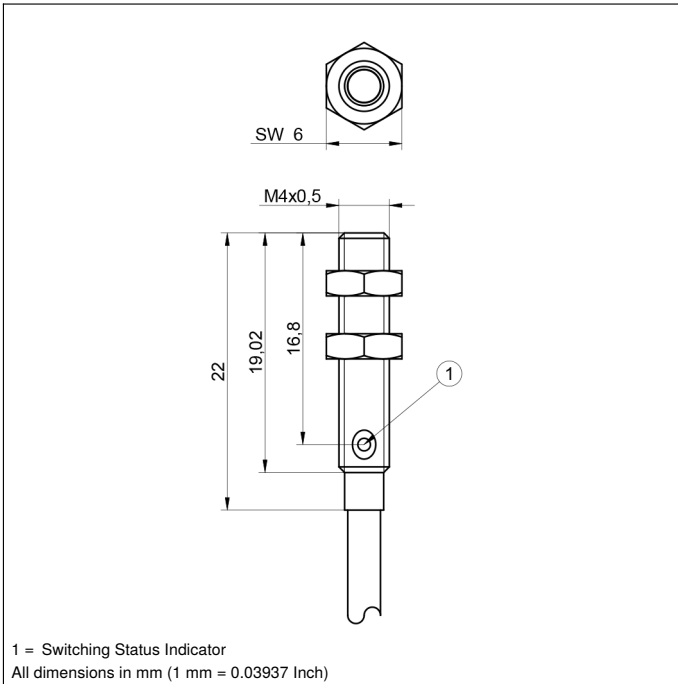
Safety-relevant Data

MTTFd (EN ISO 13849-1)	3110 a
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NPN NC

Connection Diagram No.

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Legend					
+	Supply Voltage +	nc	Not connected	EN _{RS422}	Encoder B/B̄ (TTL)
-	Supply Voltage 0 V	U	Test Input	ENA	Encoder A
~	Supply Voltage (AC Voltage)	Ū	Test Input inverted	EN _B	Encoder B
A	Switching Output (NO)	W	Trigger Input	AMIN	Digital output MIN
Ā	Switching Output (NC)	W-	Ground for the Trigger Input	AMAX	Digital output MAX
V	Contamination/Error Output (NO)	O	Analog Output	AOK	Digital output OK
ȳ	Contamination/Error Output (NC)	O-	Ground for the Analog Output	SY In	Synchronization In
E	Input (analog or digital)	BZ	Block Discharge	SY OUT	Synchronization OUT
T	Teach Input	Amv	Valve Output	OLT	Brightness output
Z	Time Delay (activation)	a	Valve Control Output +	M	Maintenance
S	Shielding	b	Valve Control Output 0 V	rsv	Reserved
RxD	Interface Receive Path	SY	Synchronization	Wire Colors according to DIN IEC 60757	
TxD	Interface Send Path	SY-	Ground for the Synchronization	BK	Black
RDY	Ready	E+	Receiver-Line	BN	Brown
GND	Ground	S+	Emitter-Line	RD	Red
CL	Clock	±	Grounding	OG	Orange
E/A	Output/Input programmable	SnR	Switching Distance Reduction	YE	Yellow
IO-Link		Rx+/-	Ethernet Receive Path	GN	Green
PoE	Power over Ethernet	Tx+/-	Ethernet Send Path	BU	Blue
IN	Safety Input	Bus	Interfaces-Bus A(+)/B(-)	VT	Violet
OSSD	Safety Output	La	Emitted Light disengageable	GY	Grey
Signal	Signal Output	Mag	Magnet activation	WH	White
BI_D+/-	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation	PK	Pink
EN _{RS422}	Encoder 0-pulse 0/0̄ (TTL)	EDM	Contact Monitoring	GNYE	Green/Yellow
PT	Platinum measuring resistor	EN _{AR5422}	Encoder A/Ā (TTL)		

Mounting

